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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,925	03/28/2001	B. Mark Hirst	10004411-1	6060

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EXAMINER

TRAN, HOAN H

ART UNIT PAPER NUMBER

2852

DATE MAILED: 04/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/819,925

Applicant(s)

HIRST ET AL.

Examiner

Hoan H. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-8,10-12 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10-12 and 16-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1, 3-8, 10-12 and 16-18 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

2. Claim 6 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim; i.e., amended base claim 1 recites "a first heating roller external to and in contact with the fuser roller". Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - Claim 7, line 1, "the heating roller" is unclear; i.e., is it pointed to "a first heating roller" or "a second heating roller" recited in base claim 1?
  - Claim 8 is also rejected for the same reason because of its dependency on claim 7.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 3, 4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. ['250] in view of Badesha et al. ['643]

Chen et al. disclose an image forming apparatus comprising a duplex fusing station [Fig. 4] for fusing toner to a recording medium [Col. 8, lines 6-16], said fusing station comprising a fuser roller [20'] including a core [21'], a pressure roller [20''] in contact with the fuser roller, a first heating roller [40'] external to and in contact with the fuser roller, a second heating roller [40''] external to and in contact with the pressure roller; wherein each of the heating rollers comprises a hollow tube and an internal heating element [Col. 14, lines 51-62].

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However, Chen et al. does not the fuser roller including a hollow tube and an internal heating element.

Badesha et al. disclose a fusing device comprising a fuser roller [10] including a hollow tube and an internal heating element [13]; wherein the fuser roller can be heated by internal heating means, external heating means or a combination of both. [Col. 6, lines 2-15]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the fuser roller disclosed by Chen et al. including a hollow tube and an internal heating element as taught by Badesha et al. for the purpose of increasing the overall heating rate into the fuser roller.

Regarding claim 3, Chen et al. disclose an optional supplementary source of heat for fusing, either external or internal, can be provided to any roller included in the fusing station. [Col. 9, lines 7-10]

Regarding claim 4, Chen et al. disclose a fuser roller comprising an outer layer composed of an elastomeric material. [Col. 2, lines 59-67]

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. in view of Badesha et al. as applied to claims 1, 3, 4, 6 and 7 above, and further in view of Chen et al. ['817]

Chen et al. in view of Badesha et al., as discussed above, disclose the claimed invention except for the pressure roller comprising an outer layer composed of an elastomeric material.

Chen et al. disclose a fusing device [10] comprising a pressure roller [28] comprising an outer layer composed of an elastomeric material. [Fig. 1; Col. 3, lines 24-26]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the pressure roller disclosed by Chen et al., as modified by Badesha et al., comprising an outer layer composed of an elastomeric material as taught by Chen et al. for the purpose of enhancing thermal conductivity.

9. Claims 8, 10-12 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. in view of Badesha et al. and Chen et al. as applied to claims 1 and 3-7 above, and further in view of Isogai ['060].

Chen et al. in view of Badesha et al. and Chen et al., as discussed above, discloses the claimed invention except for at least one of the internal heating elements comprises tungsten filament halogen lamp.

Isogai, a previously cited prior art, discloses an image forming apparatus comprising a fixing device [24] having tungsten-halogen heating lamp [32] as a heating source [Col. 4, lines 26-27].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the internal heating elements disclosed by Chen et al., as modified by Badesha et al. and Chen et al., comprising tungsten-halogen heating lamp as taught by Isogai for the purpose of providing sufficient heat to the internal heating elements during the fixing process.

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***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoan H. Tran whose telephone number is (703) 305-3523. The examiner can normally be reached from 8:30 AM - 5:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Arthur Grimley can be reached at (703) 308-1373. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722/7724, or (703) 305-3431/3432 for regular and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

HHT  
April 01, 2003



**HOAN TRAN  
PRIMARY EXAMINER**